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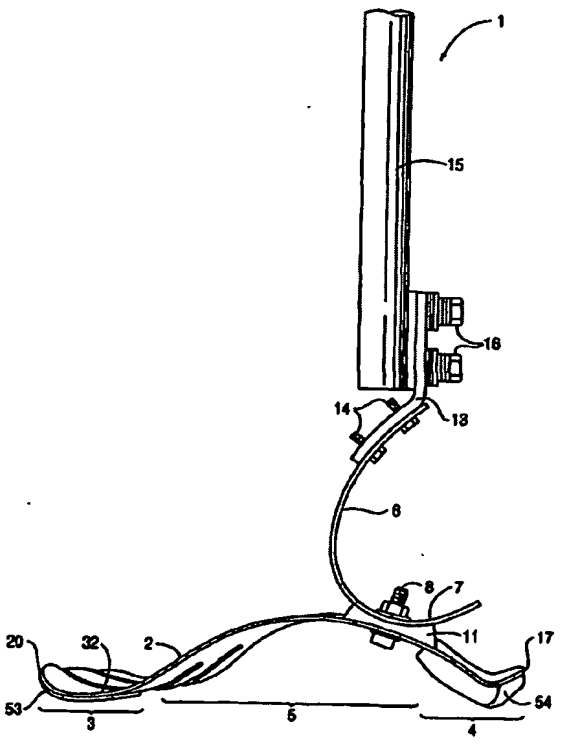
(54) Title: PROSTHETIC FOOT WITH TUNABLE PERFORMANCE AND IMPROVED VERTICAL LOAD/SHOCK ABSORPTION



(57) Abstract: A prosthetic foot (1) incorporate a foot keel (2) and a calf shank (6) connected to the foot keel (2) to form an ankle joint area of the prosthetic foot (1). The foot keel (2) has forefoot (3) and hindfoot portions (4) and a relatively long midfoot portion (5) extending between and upwardly arched from the forefoot (3) and midfoot portions (5). The calf shank (6) includes a downward convexly curved lower end (7) which is attached at a portion thereof to the keel midfoot portion (5) by way of an adjustable fastener (8) arrangement. The adjustable fastener (8) arrangement permits adjustment of the alignment of the calf shank (6) and the foot keel (2) with respect to one another in the longitudinal direction of the foot keel (2) for tuning the performance of the prosthetic foot (1). The upwardly arched midportion of the foot keel (2), in addition to absorbing energy from vertical loading by expansion, can be formed with a spring which is compressed to absorb and expanded to return vertical load during use of the prosthetic in wide range of activities from walking to running and jumping.

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